KWIGILLINGOK
HEALTH CLINIC

Alaska Rural Primary Care Facility
Code and Condition Survey

March 9, 2005

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I. Executive Summary

Overview:

It is one of the new clinics that YKHC has constructed in 2000 based on size and funding constraints of ICDBG funding. It has an arctic entry, waiting/reception room, one trauma/exam room, two exam/office rooms, one administrative/records office, one pharmacy/lab, one specialty clinic/health education/conference/exam room, one storage room, one HC toilet/bathroom room, janitor room, one mechanical room. The front entry has a vestibule, stair, and ramp, and the rear entry with no vestibule and a stair. The building is of designed with 6" plywood panelized with roof trusses, 11" roof panels, and TJI floor joists with 6" panels on the underside for a simple utilidor system. The foundation is glu-lam beams on 6 x 6 treated wood post and pad system directly on the silty sandy pad. It is serving one of the medium sized villages in the YKHC region with under 500 residents, currently 338 residents.

Renovation/Upgrade and Addition:

The existing Clinic will require a 532 SF addition to accommodate the current need and Alaska Rural Primary Care Facility space guidelines. This addition would not require any reconfiguration of the site, additional new fill, or pad work. There is some minor repair needed to the existing flush tank condition. As can be seen from the documentation enclosed, the existing clinic is in new condition and requires very few code or condition upgrades. The major cost is for the additional space to meet the guidelines. The cost of renovation and addition will not exceed 75% of the cost of a new clinic facility and therefore the minor code items should be completed and an addition should be planned to meet the space guidelines.

New Clinic:

The community has participated in the building of the new clinic and would participate in the addition required to meet the needs of the community. The current site is central to the community and other city facilities and, therefore, is ideal for current and future use. The community has proposed that an addition be provided to upgrade the new existing clinic from 1468 SF to the new larger 2000 SF Denali Commission Medium Clinic on the existing site. We have included preliminary site plan for this site and the addition to 2000 SF clinic.

The site has all existing utilities and is in easy access to the entire community and other community related facilities

The community has completely supported the efforts over the last several years and has met extensively to assist in the existing new clinic project. They have committed to participate in any addition plans in the same way.

II. General Information

A. The Purpose of the Report and Assessment Process:

ANTHC has entered into a cooperative agreement with the Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility assessment, planning, design and construction. Over 200 clinics will be inspected through the course of the program. The purpose of the Code and Condition survey report is to validate the data provided by the community in the Alaska Rural Primary Care Facility Needs Assessment and to provide each community with a uniform standard of evaluation for comparison with other communities to determine the relative need between the communities of Alaska for funding assistance for the construction of new or remodeled clinic facilities. The information provided in this report is one component of the scoring for the small clinic RFP that the Denali Commission sent to communities in priority Groups 3 and 4. The information gathered will be tabulated and analyzed according to a set of fixed criteria that should yield a priority list for funding. Additionally, the relative costs of new construction vs. remodel/addition will be evaluated to determine the most efficient means to bring the clinics up to a uniform standard of program and construction quality.

A team of professional Architects and Engineers traveled to the site and completed a detailed Field Report that was reviewed by all parties. Subsequently, the team completed a draft and then final report of the facility condition.

B. Assessment Team:

Tom Humphrey, Capital Projects Director, and Emilee Kutch, the administrator for Yukon Kuskokwim Health Corporation, organized the assessment team. The team for this site visit was Tom Humphrey, YKHC; Gerald L. (Jerry) Winchester, Architect, Winchester Alaska, Inc.; Bob Jernstrom, PE, Jernstrom Engineering, and Jennifer Schmetzer, ANTHC. Team members who assisted in preparation of report from information gathered included members of the field team above and Ben Oien PE, Structural Engineer; Tom Humphrey, PE, Electrical Engineer; Carl Bassler PE, Civil Engineer; and Estimation Inc.

C. Report Format:

The format adopted is a modified “Deep Look” format, a facilities investigation and condition report used by both ANTHC and the Public Health Service, in maintaining an ongoing database of facilities throughout the country. Facilities are evaluated with respect to the requirements of the governing building codes and design guidelines. Building code compliance, general facility condition, and program needs have been evaluated. The written report includes a floor plan of the clinic, site plan as available, and new plans for renovation/upgrade or completely new clinics. Additional information was gathered during the field visit which includes a detailed Field Report and building condition checklist, sketches of building construction details, investigations of potential sites for new or replacement clinics, and proposed plans for village utility upgrades. This information is available for viewing at ANTHC’s Anchorage offices and will be held for reference.

D. The Site Investigation:

On November 14, 2001, the team flew to the site and made observations, took photos, and discussed the needs with on-site personnel for the facility. Approximately three-four hours was spent on site, with sufficient time to investigate foundations, structure, condition, mechanical and electrical systems, and to interview the staff to assess current and projected health care needs.

Interviews were conducted with Melissa Paul, HA; Gladys Atit, CHAP; Christine Andrew, HA and other Health Aides. The staff provided information on the existing building, site, and utilities. Additional review

of existing data from YKHC files from physician's assistants, community health aides, travel clerks, dentists, specialty clinic providers, and medivac teams. These interviews provided clear understanding of the needs of the village, the clinic facility, and the users of the facility.

III. Clinic Inspection Summary

A. Community Information:

Population: 338 (2000 Census)
Unincorporated, Unorganized Borough, Lower Kuskokwim School District, Calista Native Corporation

Location:
Kwigillingok is on the western shore of Kuskokwim Bay near the mouth of the Kuskokwim River. It lies 77 miles southwest of Bethel and 388 miles west of Anchorage. The village of Kongiganak is nearby. It lies at approximately 59d 51m N Latitude, 163d 08m W Longitude. (Sec. 01, T004S, R081W, Seward Meridian.) Kwigillingok is located in the Bethel Recording District. The area encompasses 20.1 sq. miles of land and .1 sq. miles of water. Kwigillingok is located in a marine climate. Precipitation averages 22 inches, with 43 inches of snowfall annually. Summer temperatures range from 41 to 57, winter temperatures are 6 to 24.

History:
The area has long been occupied by the Yup'ik Eskimos. The first record of the village was in 1927 on an Alaska map, when it was noted as "Quillingok." A Moravian Church was established around 1920.

Culture:
Kwigillingok is a traditional Eskimo village, practicing a commercial fishing and subsistence lifestyle. The sale or importation of alcohol is banned in the village.

Economy:
Most employment in Kwigillingok is with the school, village government, stores or commercial fishing. Income is supplemented by subsistence activities. 39 residents hold commercial fishing permits. Poor fish returns since 1997 have significantly affected the community. A local arts and crafts cooperative markets local handicrafts; the village would like to expand the cooperative.

Facilities:
Water is currently derived from snow melt and a nearby lake, is treated, and hauled from the washeteria. Water shortages are common. The school operates its own surface water treatment facility, but shares a sewage lagoon with the washeteria. Homes are not plumbed. Honeybuckets are disposed of by residents. Infrastructure improvements are planned to develop a flush/haul system to serve the 74 homes in the village.

Transportation:
A State-owned 3,000' gravel airstrip is shared with Kongiganak, which provides year-round transportation. Major improvements to the airport are nearing completion. A seaplane base is also available. There are no docking facilities, although a number of residents have fishing boats or

skiffs for travel to Bethel and area villages. Snowmachines and ATVs are used during winter, and boardwalks are used for local walkways in the village.

Climate:

Kwigillingok is located in a marine climate. Precipitation averages 22 inches, with 43 inches of snowfall annually. Summer temperatures range from 41 to 57, winter temperatures are 6 to 24.

B. General Clinic Information:

Physical Plant Information:

The existing Kwigillingok Health Clinic was completed in 2000 and occupies 1468 sq. ft. (See attached Plan) It is one of the medium size clinics constructed along with 4 other clinics in 2000 by YKHC from ICDBG grants in 1999. It has a waiting room with public toilet access and with direct gurney access from the exterior into the trauma/exam room. There are two additional exam rooms. The janitor room, pharmacy and coffee bar alcove are all accessible from the waiting room. The administration/records/office is located with easy observation of the entry and waiting room. There is an additional specialty/exam room for itinerant staff and specialty clinics. There is a storage room as well as storage in each exam room, telecom racks are located in the rear with the mechanical room adjacent.

The flush tank enclosuer needs some completion work. There is need for additional office space, itinerant sleeping room, storage and space for itinerant storage as well. The addition of 532 SF would provide these spaces missing in the existing facility.

Clinic program usage information:

Patient records indicate the clinic sees an average of 857 patients per month in 2000, and 258 patients per month in 1998-99 and 92 patients per month in 1997. This is over 150% increase over the last four years with the significant increase in 2000. There are 4 full or part time staff and 1 Itinerant or contract staff equivalent. The office space provided is not adequate and all the office functions, travel, files, and use by all health aides is accomplished in the single office area

Community Program Sheet:

The community program sheet P1.0 Services has been included if available on the next page. These sheets were completed during the Code and Condition Survey by ANTHC representative.

C. Program Deficiency Narrative:

1. Space Requirements and Deficiencies:

Space Comparison Matrix - Current Kwigillingok Actual SF to Denali Commission Medium Clinic
Alaska Rural Primary Care Facility

	Current Clinic			Medium clinic					
Purpose / Activity	**Actual Net SF**			**ARPCF SF**			**Difference**		
		No.	**Net Area (SF)**	**Size**	**No.**	**Net Area (SF)**	**Size**	**No.**	**Net Area (SF)**
Arctic Entries	56	1	56	50	2	100			44
Waiting/Recep/Closet	249	1	249	150	1	150			-99
Trauma/Telemed/Exam	149	1	149	200	1	200			51
Office/Exam	114, 106	2	220	150	1	150			-70
Admin./Records	133	1	133	110	1	110			-23
Pharmacy/Lab	44	1	44	80	1	80			36
Portable X-ray			0			0			0
Specialty Clinic/Health Ed/Conf	105	1	105	150	1	150			45
Patient Holding/ Sleeping Room			0	80	1	80			80
Storage	31, 77	2	108	100	1	100			-8
HC Toilet	59	1	59	60	2	120			61
Janitor's Closet	14	1	14	30	1	30			16
Subtotal Net Area			1137			1270			133
Circulation & Net/Gross Conv. @ 45%			298			572			274
Subtotal (GSF)			1435			1842			407
Mechanical Space @ 8%			33			147			114
Total Heated Space			1468			1989			521
Morgue (unheated enclosed space)				30	1	30			30
Ext. Ramps, Stairs, Loading	As Required			As Required			As Required		

a. Overall space deficiencies: The size of the facility is about 532 sf short of the ARPCF space requirements.

b. Specific room deficiencies: There is one vestibule, no TDY, and need for specialty clinic space.

c. Other size issues: NONE

2. Building Issues:

a. Arctic Entries - The main entry is accessible for ADA and it is possible to get a gurney into the room. It has a legal ramp and door width to provide accessibility. The rear entry has a stair and compliant railings.

b. Waiting / Reception –The waiting area contains all new furniture and is very comfortable. It could use some additional furniture when the clinic is full of patients. There is a coffee bar,

and easy access to toilet facilities and to the health aid check-in through the office. The office has good visibility of the waiting room.

c. Exam / Trauma – There is a exam/trauma room directly thought the waiting room with direct and straight gurney access from the front entry. The trauma room is a bit small by the storage room in the corner that could be removed to provide the full size room per the ARPCF guidelines.

d. Office/Exam room – There are two smaller exam rooms with very adequate space for normal operation. The sink cabinets have been poorly installed and need adjustment and re-sealing to the walls. The rooms also need privacy curtains or blinds no the windows.

e. Office / Administration / Records – This room has a two desks, copier, fax, a single patient chair, and considerable storage. There is a sliding glass window to the waiting room that does provide adequate privacy for patient interviews and phone calls. The record storage could use a bit more room and the electrical is very adequate.

f. Pharmacy / Lab – There is a Pharmacy for medicines and they are all stored in locked cabinets in the storage room.

g. Specialty Clinic / Health Education / Conference – This function is completed the third exam room at the far end of the corridor. It is very adequate and serves for variety of specialty needs and does not interrupt basic clinic function when used.

h. Patient Holding / Sleeping Room – There is no sleeping room and only a rollaway bed for itinerant staff.

i. Storage – Storage is adequate and is contained in the main storage in the rear and in 10sf storage rooms adjacent to each exam room. There are good shelving and storage systems available for easy storage and access.

j. HC Toilet Facilities – There is one toilet/bathroom serving all clinic staff and patients as required. The room has a fully ADA compliant bathtub. All facilities are fully ADA compliant.

k. Janitors Room – There is a room that has a janitor's sink and is totally separate from other functions for easy access.

l. Mechanical/Boiler room – The Mechanical room is a separate room and is not used for any type of storage. It is fully code compliant.

m. Ancillary Rooms – There are no ancillary rooms, however, each room is used very efficiently.

3. Functional Design Issues

This facility is functionally adequate for its current intended use. The spaces meet the functional size requirement; sanitation and patient care requirements to meet delivery needs. The facility provides the ability to perform required medical functions easily and safely for the patients and staff.

4. Health Program Issues

    a. Patient comfort and privacy:
    The front door of the clinic is though a large vestibule that is adequate to defer the heat loss. The second exit from the end of the hallway no vestibule, however, it is distant from patients and is not used for normal access, only emergency. There is good patient privacy since all the doors are screened and each room had privacy curtains that can be drawn around the patient area.

    b. Medical/Infectious Waste
    This is being handled in a basic method burning on site generally.

    c. Infection Control
    This is being completed with very good long-term control due to new facility, new materials, current standards of surfaces for easy cleaning, and adequate cleaning facilities. All materials are good commercial quality including the sheet vinyl floor, rubber base; fiber reinforced plastic (FRP) wainscot, and painting systems.

    d. Insect and Rodent Control
    None noted or investigated

    e. Housekeeping
    The cleaning and housekeeping in being done easily and the gravel pad provides for minimal tracking of dirt and mud into the facility.

5. Utilities
    a. Water Supply
    The piped system from the washeteria is very adequate.

    b. Sewage Disposal
    Sewer system is provided by vacumn piped system to washeteria.

    c. Electricity
    See Electrical Narrative

    d. Telephone
    A single phone line services the clinic and is inadequate for current needs.

    e. Fuel Oil
    The fuel system is very adequate with new double wall tanks that meet all DEC requirements.

D. Architectural / Structural Condition

1. Building Construction:

a. Floor Construction:
The floor is 16 " TJI joist @ 16" oc spanning 28' and resting on 5 1/8" x 24" glu-laminated beams. The floor has a 6" insulated foam panel soffit providing a utilidor space under the entire building for present and future access to plumbing and utilities. The floor is ¾" plywood with underlayment and final finish. The floor support beams are supported with treated 6 x 6 posts with adjustable hardware for re-leveling of floor periodically. The simple two rows of supports make leveling a very easy project. The posts are supported by double 4 x 12 pads that are buried 1'0" for uplift. All of the piping is contained interior to the facility in the above ceiling heated space or in the heated utilidor soffit.

b. Exterior Wall Construction:
The walls are 6" insulated plywood panel construction. The supports for the roof trusses are at 4' 0" oc. The system is covered with vapor retarder and horizontal metal siding. The interior has a vapor barrier and gypsum wallboard, painted. The R-value is 30+.

c. Roof Construction:
The roof is a full-span truss at 48" oc with 10" insulated plywood panel, ice and water shield, and commercial metal roof. The insulation is approximately R60+ and the ceiling is a 4' x 8' suspended ceiling with sound attenuation blankets at all partition walls 4' both ways.

d. Exterior Doors:
The exterior doors are commercial grade insulated hollow metal. They are in great shape and would only be advisable to add deadbolts to all exterior doors for additional security.

e. Exterior Windows:
Windows are vinyl thermo-pane windows with full arctic hardware and ease of opening.

f. Exterior Decks, Stairs, and Ramps
The main Arctic entry is adequate and the secondary exit needs a vestibule. The landing, stairs, railings meet all current codes and are constructed of treated material and grip-strut treads. The rear stairs need an additional post and pad for support per the original drawings.

2. Interior Construction:

a. Flooring:
The flooring is new commercial sheet vinyl over plywood. It meets all sanitary requirements.

b. Walls:
The walls are of 3 " metal stud, with full sound insulation, gypsum wallboard and paint. This type of wall construction does provide for good patient privacy. There is no indication of any building movement on the interior surfaces.

c. Ceilings:
The ceilings are suspended acoustic tile ceilings with sound attenuation blanket at all partitions for additional sound control. The ceilings are easy to keep clean and provide easy

access to all system located above including water lines, ventilation system, and power and telecom systems.

d. Interior doors:
The interior doors are solid core wood and provide good sound isolation and need door strikes in some locations. They are fully ADA accessible and the hardware meets ADA requirement.

e. Casework:
The upper casework is commercial quality Herman Miller systems as is all the casework and movable furniture. The system furniture provides easy shifts in medical needs for supplies and equipment in the correct locations.

f. Furnishings:
The furnishings are all-new and are looking new with no signs of wear in the first year.

g. Insulation:

Floor Insulation	R-30
Wall Insulation	R-30
Attic/Roof Insulation	R-60
Attic Ventilation	No attic/none required.

h. Tightness of Construction:
The facility is extremely tight construction with the foam panel construction and the front doors need strong closures to close due to tightness. The ventilation system works well providing code minimum air changes for a very sanitary environment.

i. Arctic Design:
The one vestibule is acceptable and second is needed. Orientation and siting are all-good and provide for well-done arctic design.

3. Structural

a. Foundations
The foundation is treated 6 x 6 posts on 4 x 12 pads for support with lateral bracing for wind and seismic. There are hold down and anchorage as required.

b. Walls and Roof:
The walls, roof and all systems are new and working well.

c. Stairs. Landings, and Ramps
These elements are in good condition and do not need replacement, only the addition of the ramp section and additional stringer on the stair.

E. Mechanical Condition

1. Heating System
   a. Fuel Storage and Distribution

The clinic's heating fuel oil storage tank is located adjacent to the building as required by code. The 660-gallon storage tank does have the proper venting, piping, and valving as required by code.

b. Fuel Storage and Distribution
The Toyostove heating fuel oil storage tank is located adjacent to the building and not a minimum of 5 ft. as required by code. The 55-gallon storage barrel does not meet UL tank standards nor does it have the proper venting, piping, or valving as required by code.

c. Furnace
A single commercial grade, oil-fired furnace provides heating for the entire clinic. The furnace is in good shape with all required controls and a duct system to meet the needs of the Health Clinic. There furnace stack and the vent assembly is in good condition. There is a combustion air opening for the furnace and water heater.

d. Oil-Fired Heater
One residential grade, oil-fired, "Toyostove" provides auxiliary heating for the clinic. The heater is in good shape. The exhaust and combustion air opening for the heater is provided in the intake and exhaust kit mounted on the outside wall.

e. Heat Distribution System
The furnace supply air duct distribution system is routed through the ceiling plenum space. The return air makes its way back to the furnace through the clinic rooms and corridor. The supply air diffusers are located in the ceiling.

2. Ventilation System
   a. System
   There is a source of mechanical ventilation in the clinic. Ventilation is by an outside air duct into the furnace plenum. A set amount of outside air is introduced into the furnace plenum and from there into the supply air ductwork. The amount of outside air was determined by the occupancy of the clinic.

   All the rooms in the clinic also have operable windows.

   b. Exhaust Air
   Ceiling mounted exhaust fans service the toilet room and janitor's room. These fans are ducted outside, through the ceiling plenum, to a roof hood.

3. Plumbing System
   The clinic has no water and sewer service at the time of the inspection. The water and sewer connections to the washeteria have yet to be made.

   a. Water System
   The water system plumbing is typical ½" and ¾" copper distribution piping to the clinic exam sinks and toilet fixtures. There is currently no water system in the clinic. Water is stored in large cans for use by the occupants.

b. Sewer System
There is no sanitary sewer system in the clinic. A honey bucket is all that they have for the needs of the clinic until the sewer system is connected.

c. Fixtures
The toilet room plumbing fixtures are ADA approved for barrier free access. The janitor's sink is provided with a code required vacuum breaker.

d. Water Heater
The oil-fired water heater is installed on a non-combustible floor in the mechanical room. The water heater has been installed in a code required manner.

F. Electrical Condition

The Clinic is a new building in good condition with no electrical problems.

1. Electrical Service
   a. Electrical service is overhead 120/240V 1 phase 3 Wire, Akiak Power Co. to a 200A meter.

   b. The meter main has a built in manual transfer switch to allow a standby generator to be connected if necessary.

2. Power Distribution
   a. There is one panel in the building. Panel A is a 225amp 42 circuit single phase, 3 wire, flush mounted Cutler-Hammer PRL1. Panel A is fed with (3) 3/0 Cu XHHW.

   b. The panel directory is not current and some KO's are missing.

   c. The branch circuit wiring is all MC type cable.

3. Grounding System
   Grounding of Electrical Systems
   a. Grounding is done with a ground rod.

4. Exterior Elements
   a. Exterior lighting is provided by HPS floodlights over the HC ramp and at each entrance. Lights are photocell controlled.

5. Wiring devices
   a. GFCI protection is provided.

   b. Receptacles are hospital grade. NEC 517-18(b)

   c. Interior device plates are non-metallic ivory decorator plates.

6. Lighting
   a. Foot-candle measurements were taken and lighting levels are adequate to high. Sunlight from the windows was a contributing factor. All of the lighting is in good condition with the exception of a missing lens in the storage room and a bad ballast in the pharmacy storage.

b. The lighting is predominately 3-lamp, 2x4 fluorescent, recessed T8 lamp troffers with energy efficient electronic ballasts.

7. Emergency System
   a. There are illuminated exit signs at each door. Requirement: Means of Egress Identification "Exit Signs" Connected to emergency electrical system providing 1-1/2 hours of continuous illumination. (UBC 1003.2.8)

   b. Egress Lighting. There are recessed light emergency battery backed lights in the corridor, and in the exam rooms and office. Requirement: Means of Egress Illumination. To an intensity of not less then 1FC. (UBC 1003.2.9)

8. Fire Alarm System
   a. The building has no manual fire alarm system.

   b. The building has an interlocked, building and battery backed smoke detectors system. Smoke detectors are interconnected. There are audio/visual annunciators. ADA 4.28 and UBC 1105.4.5 Units and sleeping areas require visual alarm. (ADA 4.28.4) People do spend the night in this clinic. Restrooms, general usage areas, hallways, lobbies require audible and visual alarms (ADA 4.28) Also UBC 1105.4.5)

9. Telecommunication
   a. Telephone service enters a weatherproof protection test block on the exterior of the building.

   b. The building is completely prewired with Cat 5 for both voice and data per EIA/TIA standards.

10. Energy Management
    a. Occupancy sensors are used in most of the rooms. Ballasts are all energy efficient electronic type. Exterior lighting uses photocells.

G. Civil / Utility Condition

a. Patient Access
   Located in the relative center of the village for ease of access and seems to work fine. It is off of the main road to the airport that is an advantage.

b. Service Access
   Road access is provided to front and rear entry. Stair and ramp access are adequate.

c. Other Considerations:
   The facility is located on a flat site and is a good location with no pad required with piling foundation system.

2. Site Issues
   a. Drainage
      Drainage from the site is adequate.

b. Snow
There does not appear to be a snow-drifting problem as the facility sits in the open.

3. Proximity of adjacent buildings
There are no other building on the site and lots of room for expansion.

4. Utilities
   a. Water Supply
   The piped water supply from the washeteria is very adequate and serves well.

   b. Sewage Disposal
   The washeteria piped sewer system to the lagoon is adequate.

   c. Electricity
   Power from Village system via overhead wire. See Photos

   d. Telephone
   Overhead phone with only one phone connection, requiring fax and phone on same line

H. Existing Facility Floor Plan (Site Plans, New Clinic Plans, Regional Map):

We have attached drawings, as we have been able to identify, find, or create as part of this report. We have endeavored to provide all drawings for all the sites; however, in some cases exact existing site plans were not available. We have provided as indicated below:

A1.1 Existing Site Plan is attached if available

A1.2 Existing Facility Floor Plan is attached following.

A1.3 The Existing typical wall section is attached following as required by the report guidelines.

A2.1 The New Clinic Site plan is attached as proposed based on the community input.

A2.2 The Addition to the Existing Facility as required to meet ARPCF Space Guidelines is attached following.

IV. Deficiency Evaluation

A. Deficiency Codes:

The deficiencies are categorized according to the following deficiency codes to allow the work to be prioritized for funding. The codes are as follows:

01 Patient Care: Based on assessment of the facilities ability to support the stated services that are required to be provided at the site. Items required for the patients social environment such as storage, privacy, sensitivity to age or developmental levels, clinical needs, public telephones and furnishings for patient privacy and comfort.

02 Fire and Life Safety: These deficiencies identify areas where the facility is not constructed or maintained in compliance with provisions of the state mandated life safety aspects of building codes including the Uniform Building Code, International Building Code, The Uniform Fire Code, NFPA 101, The Uniform Mechanical and Plumbing Codes and The National Electrical Code. Deficiencies could include inadequacies in fire barriers, smoke barriers, capacity and means of egress, door ratings, safe harbor, and fire protection equipment not covered in other deficiency codes.

03 General Safety: These deficiencies identify miscellaneous safety issues. These are items that are not necessarily code items but are conditions that are considered un-safe by common design and building practices. Corrective actions required from lack of established health care industry safety practices, and local governing body code safety requirements. I.e. Occupational Safety Health Administration (OSHA) codes & standards.

04 Environmental Quality: Deficiencies based on Federal, State and Local environmental laws and regulations and industry acceptable practices. For example this addresses DEC regulations, hazardous materials and general sanitation.

05 Program Deficiencies: These are deficiencies that show up as variations from space guidelines evaluated through industry practices and observation at the facility site and documented in the facility floor plans. These are items that are required for the delivery of medical services model currently accepted for rural Alaska. This may include space modification requirements, workflow pattern improvements, functional needs, modification or re-alignment of existing space or other items to meet the delivery of quality medical services. (Account for new space additions in DC 06 below)

06 Unmet Supportable Space Needs: These are items that are required to meet the program delivery of the clinic and may not be shown or delineated in the Alaska Primary Care Facility Space Guideline. Program modifications requiring additional supportable space directly related to an expanded program, personnel or

equipment shall be identified in this section; for example additional dental space, specialty clinic, storage, or program support space that requires additional space beyond the established program.

07 Disability Access Deficiencies: The items with this category listing are not in compliance with the Americans with Disabilities Act. This could include non-compliance with accessibility in parking, entrances, toilets, drinking fountains, elevators, telephones, fire alarm, egress and exit access ways, etc.

08 Energy Management: These deficiencies address the efficiency of lighting, heating systems/fuel types and the thermal enclosures of buildings, processes, and are required for energy conservation and good energy management.

09 Plant Management: This category is for items that are required for easy and cost efficient operational and facilities management and maintenance tasks of the physical plant.

10 Architectural M&R: Items affecting the architectural integrity of the facility, materials used, insulation, vapor retarder, attic and crawlspace ventilation, general condition of interiors, and prevention of deterioration of structure and systems.

11 Structural Deficiencies: These are deficiencies with the fabric of the building. It may include the foundations, the roof or wall structure, the materials used, the insulation and vapor retarders, the attic or crawl space ventilation and the general condition of interior finishes. Foundation systems are included in this category.

12 Mechanical Deficiencies: These are deficiencies in the plumbing, heating, ventilating, air conditioning, or medical air systems, interior mechanical utilities, requiring maintenance due to normal wear and tear that would result in system failure.

13 Electrical Deficiencies: These are deficiencies with normal or emergency power, electrical generating and distribution systems, interior electrical and communications utilities, fire alarm systems, power systems and communications systems within a building that should be repaired or replaced on a recurring basis due to normal wear and tear that would otherwise result in system failure.

14 Utilities M&R: This category is used for site utilities for incoming services to facilities that are required for the building to be fully operational. Deficiencies may include sewer and water lines, water wells, water tanks, natural gas and propane storage, electric power and telecommunications distribution, etc.

15 Grounds M&R: Real property grounds components that should be replaced on a recurring basis due to normal wear and tear. Deficiencies with respect to trees, sod, soil erosion, lawn sprinklers, parking, bridges, pedestrian crossings, fences, sidewalks & roadways, and site illumination etc. are considerations.

16 Painting M&R: Any painting project that is large enough to require outside contractors or coordination with other programs.

17 Roof M&R: Deficiencies in roofing, and related systems including openings and drainage.

18 Seismic Mitigation: Deficiencies in seismic structural items or other related issues to seismic design, including material improperly anchored to withstand current seismic requirements effect. The elements under consideration should include the cost incidental to the structural work like architectural and finishes demolition and repairs.

B. Photographs:

We have provided photographs attached which are noted to describe the various deficiencies described in the narratives and itemized in the summary below. The photos do not cover all deficiencies and are intended to provide a visual reference to persons viewing the report who are not familiar with the facility.

We have included additional photos as Appendix B for general reference. These are intended to add additional information to the specific deficiencies listed and to provide general background information.

C. Cost Estimate General Provisions

1. New Clinic Construction

a. Base Cost: The Base Cost provided in Section VI of this report is the direct cost of construction, inclusive of general requirements (described below) and contingency for design unknowns (an estimating contingency). The base cost is exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The Project Factors and Area Cost Factor are multipliers of the base costs.

- General Requirements are based on Anchorage costs without area adjustment. It is included in the Base Cost for New Clinics. These costs are indirect construction cost not specifically identifiable to individual line items. It consists of supervision, materials control, submittals and coordination, etc. The general requirements factor has not been adjusted for Indian Preference.
- The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned.

b. Project Cost Factors

- Equipment Costs for new medical equipment has been added at 17% of the cost of new floor space.
- Design Services is included at 10% to cover professional services including engineering and design.
- Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
- Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

c. Area Cost Factor: The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

d. Estimated Total Project Cost of New Building: This is the total estimated cost of the project, including design services. The construction contract will be work subject to Davis Bacon wages, and assumes construction before year-end 2002. No inflation factor has been applied to this data.

2. Remodel, Renovations, and Additions

a. Base Cost: The Base Cost provided in the specific deficiency sheets is the direct cost of construction, exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis

Bacon wages, regionally adjusted to Anchorage. Most of the deficiency items do not constitute projects of sufficient size to obtain efficiency of scale. The estimate assumes that the projects are completed either individually, or combined with other similar projects of like scope. The numbers include moderate allowances for difficulties encountered in working in occupied spaces and are based on remodeling rather than on new construction costs. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The General Requirements, Design Contingency and Area Cost Factors are multipliers of the base costs.

- The cost of Additions to clinics is estimated at a unit cost higher than new clinics due to the complexities of tying into the existing structures.
- Medical equipment is calculated at flat rate of approximately $32 which is the same amount as used for Equipment for New Clinic Construction. It is included as a line item in the estimate of base costs.

b. General Requirements Factor: General Requirements Factor is based on Anchorage costs without area adjustment. The factor is 1.20. It is multiplied by the Base Cost to get the project cost, exclusive of planning, architecture, engineering and administrative costs. This factor assumes projects include multiple deficiencies, which are then consolidated into single projects for economies of scale. The general requirements factor has not been adjusted for Indian Preference.

c. Area Cost Factor: The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

d. Contingency for Design Unknowns (Estimating Contingency): The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned. The factor used is 1.15.

e. Estimated Total Cost: This is the total estimated bid cost for work completed under Davis Bacon wage contracts, assuming construction before year-end 2002. This is the number that is entered in the front of the deficiency form. No inflation factor has been applied to this data.

f. Project Cost Factors: Similar to new clinics, the following project factors have been included in Section VI of this report.

- Design Services is included at 10% to cover professional services including engineering and design.
- Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
- Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

g. Estimated Total Project Cost of Remodel/Addition: This is the total estimated cost of the project including design services, the construction contract cost for work completed under Davis Bacon

wages and assuming construction before year-end 2002. No inflation factor has been applied to this data.

V. Summary of Existing Clinic Deficiencies

The attached sheets document the deficiencies; provide recommendations on how to make repairs or accommodate the needs and provide a cost estimate to accomplish the proposed modifications. The summary addresses individual deficiencies. If all deficiencies were to be addressed in a single construction project there would be cost efficiencies that are not reflected in this tabulation.

These sheets are reports from the Access Data Base of individual Deficiencies that are compiled on individual forms and attached for reference.

Refer to Section VI. New Clinic Analysis for a comparison of remodel/addition to new construction.

VI. New Clinic Analysis

The analysis of whether a new clinic is required is based on the Denali Commission standard of evaluation that "New Construction is viable if the cost of Repair/Renovation and Addition exceeds 75% of the cost of New Construction".

We have therefore determined the cost of a New Clinic Construction to meet the Alaska Rural Primary Care Facility (ARPCF) Space Guidelines for the size of village. We have also determined the cost to Repair/Renovation and Addition to the existing Clinic to meet the same ARPCF Space Guidelines.

A. The cost of a New Denali Commission 2000 SF Medium Clinic in Kwigillingok is projected to be:

• Base Anchorage Construction Cost per sf.			$183
• Project Cost Factor:		@ 45%	$ 82
Medical Equipment	17%		
Construction Contingency	10%		
Design Fees	10%		
Construction Administration	8%		
• Multiplier for Village		@ 1.70	$186
Adjusted Cost per SF			$451

Projected Cost of a New Clinic: 2000 sf. X $451 = $902,000

B. The cost of the Repair/Renovation and Additions for the existing Clinic are projected to be:

• Code & Condition Repairs/Renovations			
Cost from Deficiency Summary			$ 21,726
• Remodel/Upgrade work (See Def. Code 01)			$ 638
• Additional Space Required by ARPCF – (See Def. Code 06)			
o Base Anchorage Cost		$226	
Medical Equipment		$ 32	
Additional Costs –		$ 98	
General Requirements	20%		
Estimation Contingency	15%		
o `Multiplier for Village	@1.70	$247	
Adjusted Cost per SF		$603	
Total Addition Cost of 532 SF @ $603			$320,616
• Project Cost Factor:	@ 28%		$ 96.034
Construction Contingency	10%		
Construction Administration	8%		
Design Fees	10%		

Total cost of remodel/addition $439,014

C. Comparison of Existing Clinic Renovation/Addition versus New Clinic:

Ratio of Renovation/Addition versus New Clinic is:
$439,014 / $902,000 = 0.49 x cost of New Clinic

Based on Denali Commission standard of evaluation; the remodel/addition costs are more than 75% of the cost of new construction. A new clinic is recommended for this community.

* Note: Village factors may have been adjusted for recent 2001 cost adjustments and may have changed from previously published data distributed to the villages.

D. Overall Project Cost Analysis:

The overall project cost analysis below incorporates land, multi-use, utility costs, and road access costs, and project management fees if any are associated with the project.

Item	Quantity	Units	Unit Cost	Area Adjustment Factor	Total Cost	Allowable under "Small" Clinic Process (yes/no)
Primary Care Clinic (Allowable)	2000	SF	$265.00	1.7	$902,000	yes
Clinic (Non-allowable portion)	0	SF	$265.64	1.7	$0	no
Land	15,000	SF	$2.00	1	$30,000	yes
Multi-Use Facility Design Cost	0	LS	$0.00	1	$0	yes
Multi-Use Facility Construction Cost	0	LS	$0.00	1	$0	no
Utility Extension/Improvements	1	LS	$15,000	1	$15,000	yes
Road access & parking lot improvements	1	LS	$5,000	1	$5,000	yes
Subtotal Project Cost					$952,000	
Project Management Fees					Unknown	
Total Project Cost					**Unknown**	

VII. Conclusions and Recommendations

The existing Kwigillingok Clinic is new in year 2000 and is serving the community very well. Based on current ANTHC and YKHC delivery model for health care to rural Alaska, the facility is short 532 SF to meet these needs. An addition could be provided to the existing structure to meet those needs without extensive remodeling.

After careful review it is the recommendation of the consultant team that the existing new facility be provided with an addition to accommodate the needs of Kwiggillingok. The addition of approximately 532 SF of clinic space required by the current ARPCF Program Space Guidelines and the minor renovation and upgrading of the existing clinic space will cost .49 times the cost of a new clinic. This results in the recommendation of an addition to the existing facility.

We reviewed the options with the local community leaders the consensus was that the Addition to the Clinic would meet the current community needs and for years to come. In addition, they agreed and that the existing site can be used for the addition and it will fit easily.

The community believes this is a good solution and will produce the best return for funds invested in a clinic that meets the needs of Lower Kalskag community and is aggressively moving to assist in any way to accomplish this goal.

Appendix A: Specific Deficiencies Listings

The attached sheets represent the individual deficiencies identified for this project and the corrective action required to meet current codes and standards of construction. The deficiencies are further summarized in Section V. Summary of Existing Clinic Deficiencies.

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